

SEQUENCE LISTING

<110> Merot, Bertrand  
Dieryck, Wilfrid  
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Gruber, Veronique  
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Baudino, Sylvie  
Poyart, Claude

<120> METHOD FOR PRODUCING HAEMIN PROTEINS USING PLANT CELLS,  
RESULTING PROTEINS AND PRODUCTS CONTAINING SAME

<130> 8076.147USWO

<140> 08/983,564

<141> 1998-06-09

<150> PCT/FR96/01123

<151> 1996-07-17

<150> 95/08615

<151> 1995-07-17

<160> 33

<170> PatentIn Ver. 2.1

<210> 1

<211> 32

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<223> Description of Artificial Sequence: Synthetic:  
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<400> 1

agctgattaa ttaaggcgcg ccacgcgtta ac

32

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pBIOC21

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aattgttaac gcgtggcgcg ccttaattaa tc

32

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<223> Description of Artificial Sequence: Homo sapiens

<400> 3

tacaagctta acaatggtgc tgtctccggc cgac

34

<210> 4

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<223> Description of Artificial Sequence: Homo sapiens

<400> 4

cggtgccacc cggagcttgt g

21

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<211> 21

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<223> Description of Artificial Sequence: Homo sapiens

<400> 5

cacaagctcc ggggtggaccc g

21

<210> 6

<211> 24

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<223> Description of Artificial Sequence: Homo sapiens

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tcaacggtat ttggaggtca gcac

24

<210> 7

<211> 52

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Homo sapiens

<400> 7

gtcattaatt aacaatggtg cacctgactc ctgaggagaa gtcggccgtt ac

52

<210> 8

<211> 43

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Homo sapiens

<400> 8

aatgagctcg ttaacqcggt tagtgatact tgtgggccag ggc

43

<210> 9

<211> 162

<212> DNA

<213> Nicotiana plumbaginifolia

<400> 9

atggcttctc ggaggcttct cgctctctc ctccgtcaat cggctcaacg tggcggcgggt 60  
ctaatttccc gatcgtagg aaactccatc cctaaatccg cttcacgcgc ctcttcacgc 120  
gcatccccta agggattcct cttaaaccgc gccgtacagt ac 162

<210> 10

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nicotiana  
plumbaginifolia

<400> 10

cgcaagctta acaatggctt ctcggaggct tctc

34

<210> 11

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic:  
Nicotiana plumbaginifolia and Homo sapiens

<400> 11

tagaattcgg ccggagacag cacgtactgt acggcgcggt ttaag

45

<210> 12

<211> 42

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Nicotiana  
plumbaginifolia

<400> 12

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42

<210> 13

<211> 61

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic:  
Nicotiana plumbaginifolia and Homo sapiens

<400> 13

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g 61

<210> 14

<211> 171  
<212> DNA  
<213> Pisum sativum

<400> 14  
atggcttcta tgatatactc ttcagctgtg actacagtca gccgtgcttc tacggtgcaa 60  
tcggccgcgg tggctccatt cggcggcctc aaatccatga ctggattccc agttaagaag 120  
gtcaacactg acattacttc cattacaagc aatggtggaa gagtaaagtg c 171

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<400> 15  
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Pisum sativum and Homo sapiens

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<210> 17  
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<223> Description of Artificial Sequence: Pisum sativum

<400> 17  
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<210> 18

<211> 57  
<212> DNA  
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<223> Description of Artificial Sequence: Synthetic:  
Pisum sativum and Homo sapiens

<400> 18  
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<210> 19

<211> 69

<212> DNA

<213> Ipomoea batatas

<400> 19  
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gccattcc 69

<210> 20

<211> 33

<212> DNA

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<223> Description of Artificial Sequence: Ipomoea  
batatas

<400> 20  
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<210> 21

<211> 45

<212> DNA

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<223> Description of Artificial Sequence: Synthetic:  
Ipomoea batatas and Homo sapiens

<400> 21  
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<223> Description of Artificial Sequence: Ipomoea  
batatas

<400> 22  
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Ipomoea batatas and Homo sapiens

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<210> 24  
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<400> 24  
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<210> 25  
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<223> Description of Artificial Sequence: Homo sapiens

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44

<210> 26

<211> 55

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Homo sapiens

<400> 26

aatgagctcg ttaacgcgtt tatagctcat cttgtgata cttgtgggcc agggc 55

<210> 27

<211> 111

<212> DNA

<213> Ipomoea batatas

<400> 27

atgaaagcct tcacactcgc tctcttctta gctctttccc tctatctcct gcccaatcca 60  
gcccatcca ggttcaatcc catccgctc cccaccacac acgaaccgc c 111

<210> 28

<211> 43

<212> DNA

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<223> Description of Artificial Sequence: Synthetic:  
Ipomea batatas and Homo sapiens

<400> 28

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<210> 29

<211> 59

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic:  
Ipomea batatas and Homo sapiens

<400> 29



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<210> 30

<211> 423

<212> DNA

<213> Homo sapiens

<400> 30

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acctaattcc cgcacttcga cctgagccac ggctctgccc aggttaaggg ccacggcaag 180  
aaggtggccg acgcgtgac caacgccgtg gcgcacgtgg acgacatgcc caacgcgctg 240  
tccgccctga gcgacctgca cgcgcacaag cttcggtggg acccgggtcaa cttcaagctc 300  
ctaagccact gcctgctggt gaccctggcc gccacacctc ccgccgagtt caccctgcg 360  
gtgcacgcct ccctggacaa gttcctggct tctgtgagca ccgtgctgac ctcaaatac 420  
cgt 423

<210> 31

<211> 141

<212> PRT

<213> Homo sapiens

<400> 31

Val Leu Ser Pro Ala Asp Lys Thr Asn Val Lys Ala Ala Trp Gly Lys  
1 5 10 15

Val Gly Ala His Ala Gly Glu Tyr Gly Ala Glu Ala Leu Glu Arg Met  
20 25 30

Phe Leu Ser Phe Pro Thr Thr Lys Thr Tyr Phe Pro His Phe Asp Leu  
35 40 45

Ser His Gly Ser Ala Gln Val Lys Gly His Gly Lys Lys Val Ala Asp  
50 55 60

Ala Leu Thr Asn Ala Val Ala His Val Asp Asp Met Pro Asn Ala Leu  
65 70 75 80

Ser Ala Leu Ser Asp Leu His Ala His Lys Leu Arg Val Asp Pro Val  
85 90 95

Asn Phe Lys Leu Leu Ser His Cys Leu Leu Val Thr Leu Ala Ala His  
100 105 110

Leu Pro Ala Glu Phe Thr Pro Ala Val His Ala Ser Leu Asp Lys Phe  
115 120 125

Leu Ala Ser Val Ser Thr Val Leu Thr Ser Lys Tyr Arg  
 130 135 140

<210> 32  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

<400> 32  
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 ttctttgagt cctttgggga tctgtccact cctgatgctg ttatgggcaa ccctaaggtg 180  
 aaggtcatg gcaagaaagt gctcgggtgcc tttagtgatg gcctggctca cctggacaac 240  
 ctcaagggca cctttgccac actgagttag ctgcactgtg acaagctgca cgtggatcct 300  
 gagaacttca ggctcctggg caacgtgctg gtctgtgtgc tggcccatca ctttggcaaa 360  
 gaattcacc caccagtgcg ggctgcctat cagaaagtgg tggtggtgt ggctaatagcc 420  
 ctagcccaca agtatcac 438

<210> 33  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 33  
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 Lys Val Asn Val Asp Glu Val Gly Gly Glu Ala Leu Gly Arg Leu Leu  
 20 25 30  
 Val Val Tyr Pro Trp Thr Gln Arg Phe Phe Glu Ser Phe Gly Asp Leu  
 35 40 45  
 Ser Thr Pro Asp Ala Val Met Gly Asn Pro Lys Val Lys Ala His Gly  
 50 55 60  
 Lys Lys Val Leu Gly Ala Phe Ser Asp Gly Leu Ala His Leu Asp Asn  
 65 70 75 80  
 Leu Lys Gly Thr Phe Ala Thr Leu Ser Glu Leu His Cys Asp Lys Leu  
 85 90 95  
 His Val Asp Pro Glu Asn Phe Arg Leu Leu Gly Asn Val Leu Val Cys  
 100 105 110

Val Leu Ala His His Phe Gly Lys Glu Phe Thr Pro Pro Val Gln Ala  
115 120 125

Ala Tyr Gln Lys Val Val Ala Gly Val Ala Asn Ala Leu Ala His Lys  
130 135 140

Tyr His  
145